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**Abstract**

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29

# Information Capabilities as a Force for Change and Force Multiplier

Andrew Sleigh

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# My themes:

Information Capabilities are in the front line of Crisis Management

*Agility* is the primary capability for the (new?) climate

1. Information capabilities as the glue for agility

2. Agile information assets

3. Agile capability based acquisition

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# Security Planning

- Prediction is impossible
  - un-knowable complexity of the way people and physical world interact to cause "events"

- The only strategy is to have good indicators and warnings and be able to respond fast

- Planning is therefore about
  - maximising ability to respond to the unexpected
  - watching the right indicators and warnings so as to act early

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Section 1

# Information capabilities: the glue
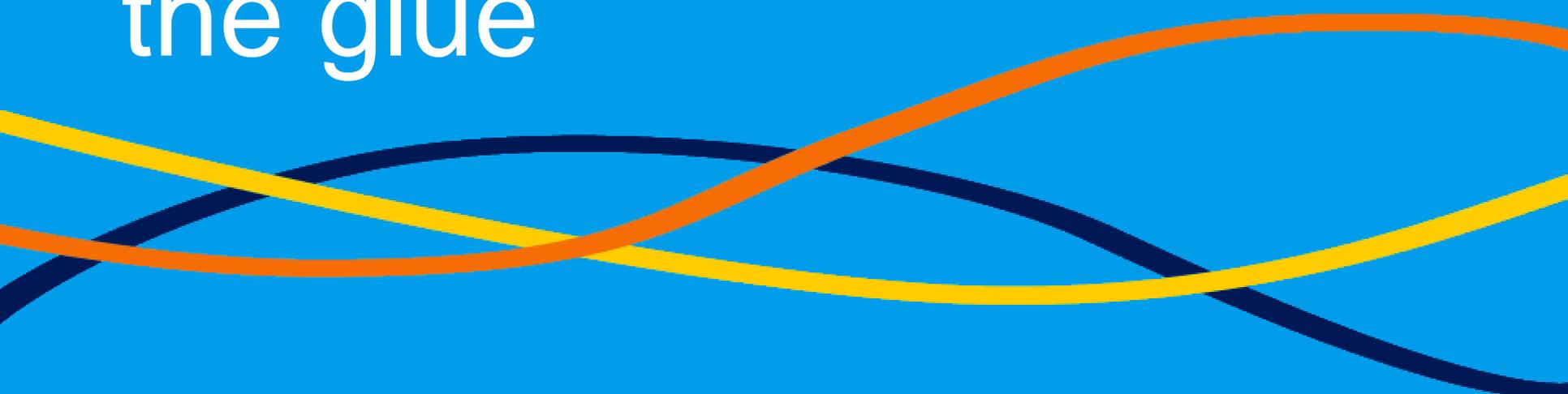
# The Real RMA?



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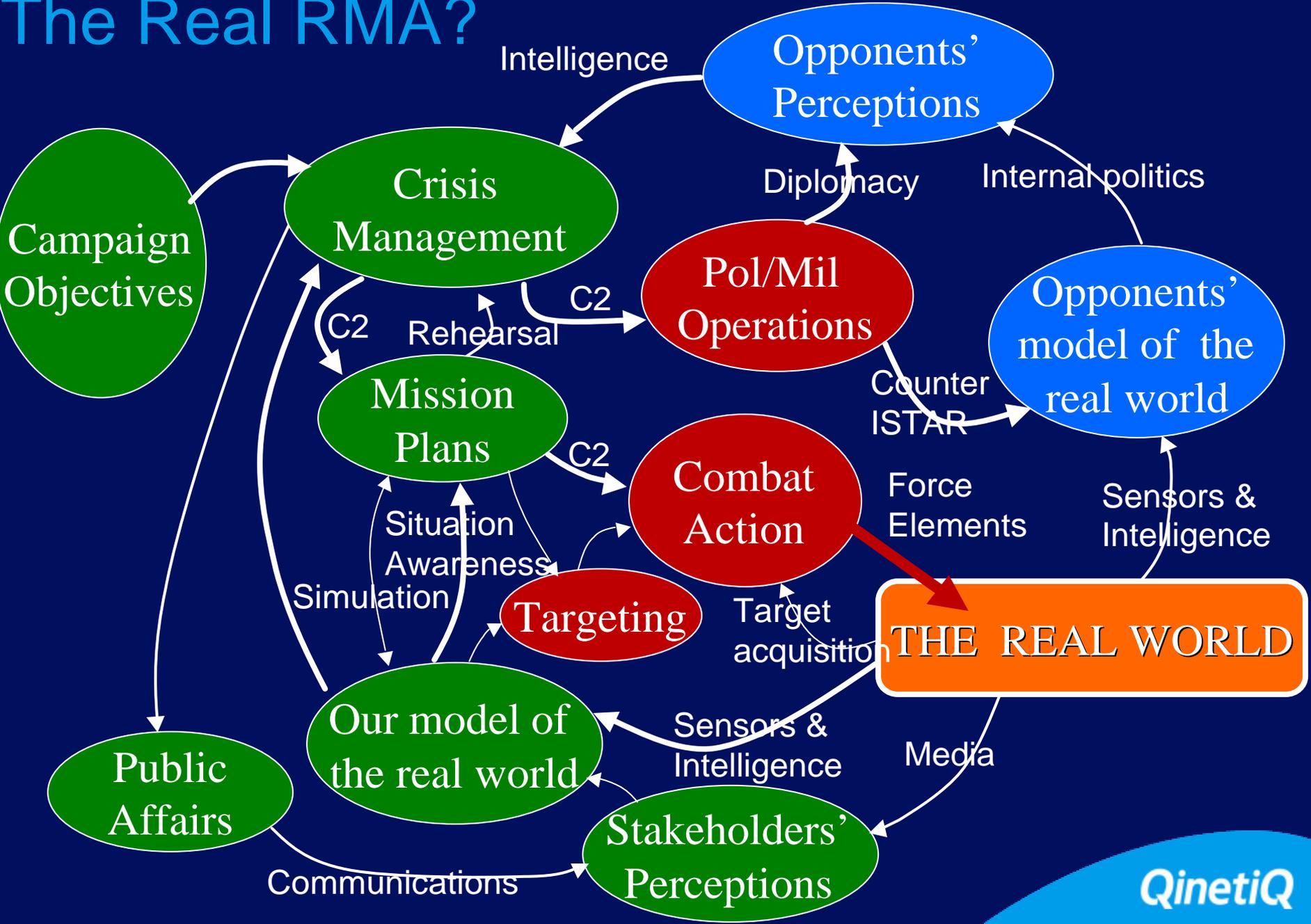
# Information capabilities: the glue for agility

- Crisis management today: integrated deployment of political, military, economic and awareness means

- Information capabilities configure and bind assets to generate effect
  – orchestrates players to deliver desired outcomes

- We need to think of information capabilities as the primary instrument for managing security
  – the central trunk for crisis management, and effective warfighting
  – agility of all forces determined by information agility

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Section 2

# Agility in information capabilities

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Agility in information capabilities will be vital to our overall ability to manage crises

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# Agility in information assets (1): Sensor to Shooter
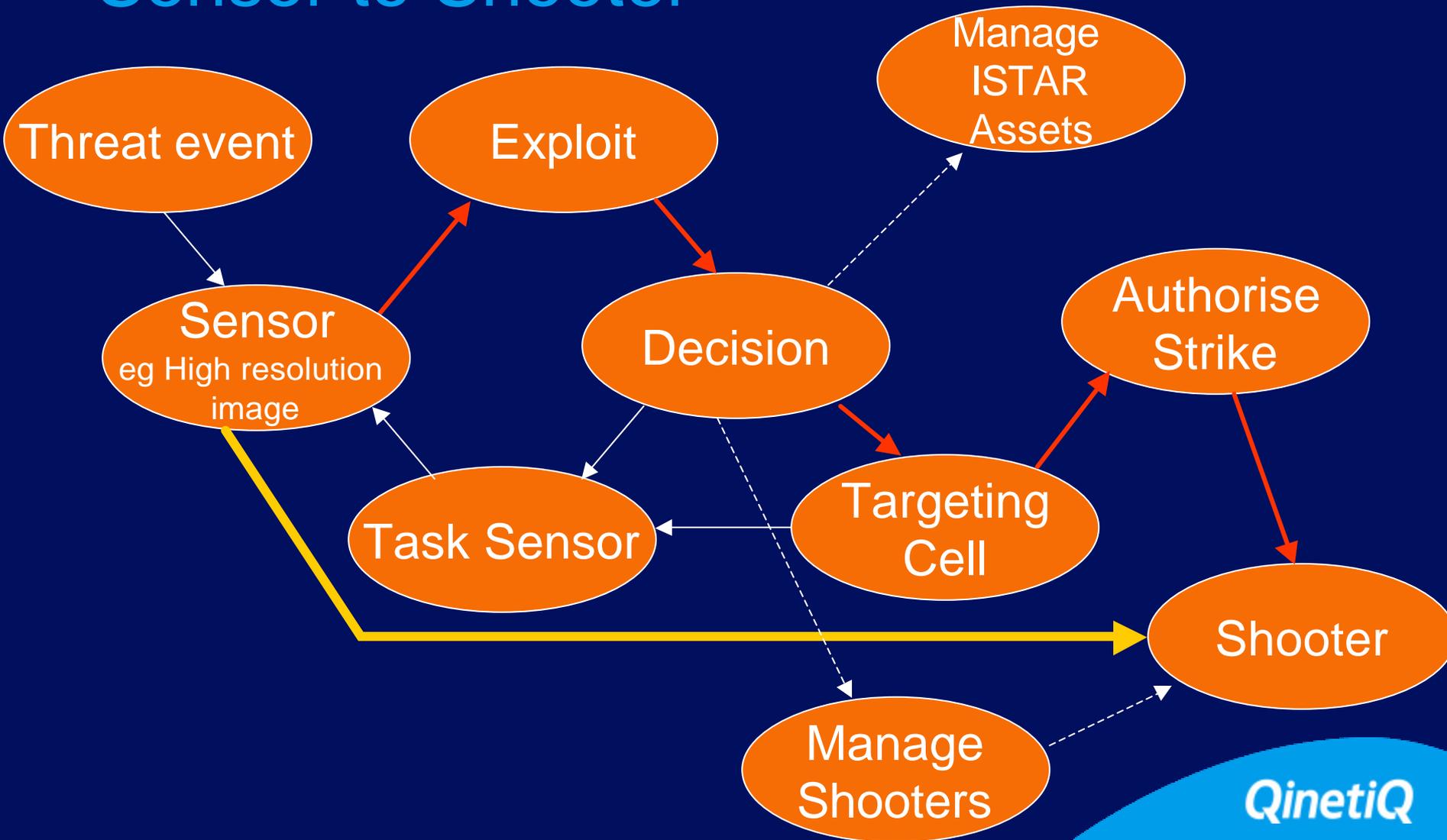
# Agility in information assets (2): Civil / Military

- No longer a distinction between military and civil "ISTAR"
  - events may originate as criminal investigation but move seamlessly to military involvement
  - policing and military action now operate in tandem
  - Military ISTAR could include sensing stock market deals, tracking people's movements, analysing personality profiles
- Implies investment in ability to integrate civil and military ISTAR capabilities, and take a broader capability look

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# ISTAR product



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# Agility in information assets(3): Dynamic doctrine and tactics

- Approaches to pol/mil interaction, command style, decision making and security policy can all differ across any group of partners in a coalition

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# Agility in information assets (3): Dynamic doctrine and tactics

- Multi-National Interoperability Council held a Seminar Wargame in 1999. It highlighted a several impediments to coalition operations, including:
  - fundamental differences in the way information is handled and security policy defined
  - different approaches to forming plans
  - different customs for decision making and delegation
  - different relationships between military command and the political crisis management dimensions

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# Agility in information assets (3): Dynamic doctrine and tactics

- We need to be able to adapt doctrine and procedures with type and phase of operation, lead nation, selection of partners, etc

- Information capabilities must support this flexibility

- Information capabilities (through simulation and battlelabs) support experimentation to evolve effective and harmonised ways of working

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# Agility in information assets (4): Helping commanders work together

- Many "soft" people issues to get right
  - high dependence on battlelab and synthetic environment capabilities to explore process and C2 application solutions

- Growing number of experiments where real command teams have taken part in research programmes as part of their training and development

- Several research techniques are being used in Exercise SAIF SEREEA to explore coalition command issues

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# Agility in information assets (5): Helping commanders work together

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# Agility in information assets (5): Crisis management C2

- Command and control for crisis management
  - like warfighting, C2 in the pol/mil space needs situation awareness, planning and command tools

- For example
  - Secure, trusted political decision making
  - Operational level situation awareness
    - including psychological profiling of adversaries, media and website monitoring, anomaly detection in transaction data, etc
  - Techniques to manage and minimise risks
    - esp avoid elephant trap outcomes

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# Agility in information assets (6):
## Research examples feeding operational agility

- Flexible "reports & returns" process exploited by BAE Systems in GP3, moves away from 12 hour reporting

- COTS data mining tool able to rapidly find 'hidden' relationships and patterns in intelligence data

- A range of security products that allow controlled sharing of information

  – deployed in all recent operations

- FAST: intuitive ATO planner allows dynamic update and real-time verification of air tasking orders

  – tested by Air Warfare Centre and in use by Malaysia

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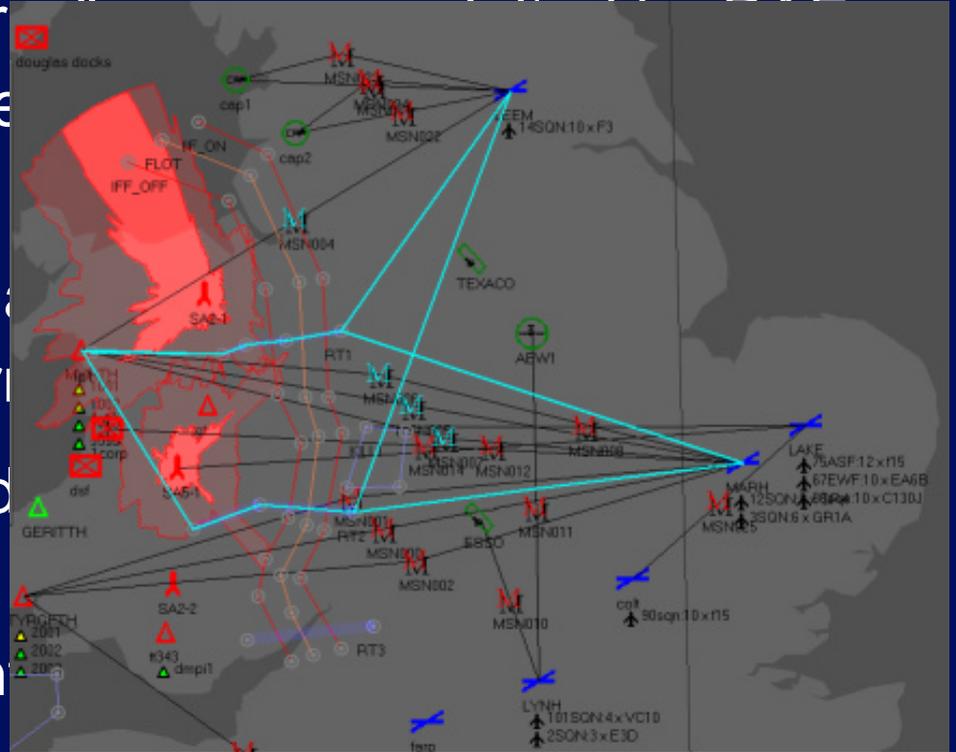
Section 3

# Agile capability based acquisition

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# Smart Acquisition for agile capability development

- Smart Acquisition gives us the tools to achieve agility in capability development

- How do we get the right "customs" in place to use them to full effect

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# Capability based acquisition

- The UK Capability approach is a crucial asset
  - driven by outcomes, not programmes
  - Capability Plans provide the framework to articulate trends and risks, then judge investment priorities
  - no pre-commitment to a solution

- Can we strengthen Capability Plan process by focusing more directly on the flexibilities we need to create to hedge across events?

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# Capability based acquisition: Getting the right flexibilities

- Identify trends and synthesise implied "events" and associated indicators and warnings (I&W)

  - eg the RAND "Day before…" approach

- Focus on capabilities that mitigate events with an I&W "turning circle" inside current responses

- Balance investment to realise short term capability improvements

  - with option "hooks" that can be exercised in response to I&W or lowered technology risk

  - fast-track user needs to adapt equipment "fit-for-role"

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# Providing hooks for latent capability

- Focus on minimum essential baseline capability,
  - get it in early
  - accept by outcomes not system performance
- URD should explicitly map out plausible avenues for extension options, updated regularly in partnership with IPT
  - make demonstration of flexibility part of acceptance
  - run parallel demonstrator programmes for extension avenues
  - maintain funding headroom to activate options rapidly

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# Fast-track user needs to achieve "fit-for-role"

- Use battlelabs and simulators to test emerging concepts

- "Pre-emptive UOR" aimed at risks with rising I&Ws
  - Use trade-off "envelope", and in-year transfers, to fund rapid technology insertion

- Ensure research contractors have ability to exploit successes rapidly into field

- Allow contractors to introduce unsolicited innovative capabilities, charged to IPT or end-user if taken up

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# Making Smart Acquisition agile

- Smart Acquisition gives DECs and IPT Leaders very significant authorities to adapt programmes and funding to optimise capability benefit

- Have been instances where these authorities have been exercised with great effect

- Important now for DECs and IPT Leaders to stretch these authorities and tighten our procurement turning-circle

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# Concluding remarks

- Those responsible for information capabilities probably now bear the greatest influence on our future success in defence

- We will never know what is round the corner, but we can make good judgements on what we need to do to improve our agility to respond

- The UK approach to Capability based acquisition has all the right features for agility; we now need to make it really sing for us

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